

^{Wilhelm}Roux's Archives of **Developmental Biology**

Volume 191 · 1982

Editorial Board

Members

R. Weber, Bern
Editor in Chief

K. Illmensee, Geneva
Editor for Rapid Communications

M. Ashburner, Cambridge
W. Engels, Tübingen
G. Freeman, Austin
C.F. Graham, Oxford
F.C. Kafatos, Cambridge, Mass.
N. Le Douarin, Nogent-sur-Marne
E. Nakano, Nagoya
A.A. Neyfakh, Moscow

J. Postlethwait, Eugene
F.M. Ritossa, Bari
K. Sander, Freiburg, i. Br.
C.E. Sekeris, Athens
P. Sengel, Grenoble
H. Tiedemann, Berlin
N.H. Verdonk, Utrecht

Honorary Members

J. Brachet, Napoli
F. Duspiva, Heidelberg
G. Krause, Würzburg

A. Monroy, Napoli
P.D. Nieuwkoop, Utrecht
E. Wolff, Paris



Springer-Verlag Berlin Heidelberg New York
J.F. Bergmann Verlag München

Wilhelm Roux's Archives of Developmental Biology

The Archiv für Entwicklungsmechanik was founded in 1894 by *Wilhelm Roux*. Vols. 1–43 (1918) Leipzig, Engelmann. From Vol. 44 called *Wilhelm Roux's Archiv für Entwicklungsmechanik der Organismen*, Organ für die gesamte kausale Morphologie, Berlin, Springer, Vols. 52/97, in a transition volume in 1923. From Vol. 98 to Vol. 104, combined with the Archiv für mikroskopische Anatomie founded in 1864 [till 1876 (Vol. 13) edited by *M. Schulze*, Vol. 13, No. 4 to Vol. 35 (1890) edited by *La Valette St. George*, *W. Waldeyer*, Vols. 36 to 43 (1894) edited by *O. Hertwig*, *La Valette St. George*, *W. Waldeyer*, from Vol. 44 as Archiv für mikrobiologische Anatomie und Entwicklungsgeschichte. Vols. 77–95 (1910–1922) in two sections Bonn, Cohen]. From Vol. 96 Berlin, Springer. Vols. 98–104 (1925) combined with Roux's Archiv and again published separately from 1925 as Zeitschrift für Zellforschung, Vol. 2 and following. Vols. 105–130 as Zeitschrift für wissenschaftliche Biologie, Abteilung D, edited by *Wilhelm Roux*, *H. Speman*, *W. Vogt*, *B. Romeis*. From Vol. 131 (1933) under the single title. From Vol. 143 (1947) Berlin, Springer, and Munich, Bergmann. From Vol. 181 (1977) Heidelberg, Springer.

It is a fundamental condition that submitted manuscripts have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature, and translations.

Photographic reproduction, microform, or any other reproduction of text, figures, or tables from this journal is prohibited without permission obtained from the publisher.

The use of general descriptive names, trade names, trade marks, etc., in this publication, even if the former are not specifically identified, is not to be interpreted as exempt from the relevant protective laws and regulations and may accordingly be used freely by anyone.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors nor the editors nor the publisher can accept any legal responsibility for errors or omissions that may have been made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special Regulations for the USA

The Article Fee Code on the first page of an article in this journal indicates the copyright owner's consent that in the USA copies may be made for personal or internal use, provided the stated fee for copying beyond that permitted by Section 107 or 108 of the United States Copyright Law is paid through the *Copyright Clearance Center, Inc.*, 21 Congress Street, Salem, MA 01970, USA.

If a code does not appear copies of the article may be made without charge, provided permission is obtained from the publisher.

The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying.

Other Regulations

Authors of this journal can benefit from library and photocopy fees collected by VG WORT if certain conditions are met. If an author lives in the Federal Republic of Germany or in West Berlin it is recommended that he contact Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestrasse 49, D-8000 München 2, for detailed information.

Springer-Verlag Berlin Heidelberg New York
J.F. Bergmann Verlag, München

Printers: Universitätsdruckerei H. Stürtz AG Würzburg

© Springer-Verlag Berlin Heidelberg 1982

Printed in Germany

Contents Volume 191

Aketa, K., s. Czihak, G., et al.	202	of Dextrality and Sinistrality in the Gastropod <i>Lymnaea peregrea</i>	69
Baeckmann, A., Sauer, H.W.: Sequence Complexity of Poly (A) RNA from <i>Physarum polycephalum</i>	341	García-Bellido, A., s. Miñana, F.J.	331
Beetschen, J.-C., s. Grinfeld, S.	215	Gharib, B., s. Bulrière, D., et al.	222
Bluemink, J.G., s. Sugimoto, K., et al.	143	Grey, R.D., s. Stewart-Savage, J.	241
Bôle-Richard, M.-A., Griffond, B.: A Quantitative and Qualitative Study of Proteins of the Gonadal Extract During Growth and Phases of Reproductive Activity in the Snail <i>Helix aspersa</i> Müller	91	Griffond, B., s. Bôle-Richard, M.-A.	91
Brandes, P.J., s. Liversage, R.A.	149	Grinfeld, S., Beetschen, J.-C.: Early Grey Crescent Formation Experimentally Induced by Cycloheximide in the Axolotl Oocyte	215
Brick, I., s. Weinberger, C.	119, 127	Hage, W.J., s. Sugimoto, K., et al.	143
Bryant, P.J., s. Kirby, B.S.	289	Harris, H.L., Zalik, S.E.: The Presence of an Endogenous Lectin in Early Embryos of <i>Xenopus laevis</i> . (Rapid Communication)	208
Bulrière, D., Bulrière, F., Mounaji, K., Reggi, M. de, Gharib, B.: Positional Cell Surface Antigens in an Insect Appendage	222	Haupt, J.: Hair Regeneration in a Solifugid Chemotactile Sensillum during Moulting (Arachnida: Solifugae)	137
Bulrière, F., s. Bulrière, D., et al.	222	Hausen, P., s. Dreyer, Ch., et al.	228
Campos-Ortega, J.A., s. Jiménez, F.	191	Haynie, J.L.: Homologies of Positional Information in Thoracic Imaginal Discs of <i>Drosophila melanogaster</i>	293
Chang, P., s. Czihak, G., et al.	202	Heacox, A.E., Schroeder, P.C.: The Effects of Prostomium and Proventriculus Removal on Sex Determination and Gametogenesis in <i>Typosyllis pulchra</i> (Polychaeta: Syllidae)	84
Chevallier, A., Kieny, M.: On the Role of the Connective Tissue in Patterning of the Chick Limb Musculature (Rapid Communication)	277	Hilbig, R., Rösner, H., Merz, G., Segler-Stahl, K., Rahmann, H.: Developmental Profiles of Gangliosides in Mouse and Rat Cerebral Cortex (Rapid Communication)	281
Chibon, P., s. Moustafa, Y.	309	Jeserich, G.: Pattern of Structural Differentiation in the Optic Nerve of Trout (<i>Salmo gairdneri</i>)	176
Claviez, M., s. Epperlein, H.H.	5	Jiménez, F., Campos-Ortega, J.A.: Maternal Effects of Zygotic Mutants Affecting Early Neurogenesis in <i>Drosophila</i>	191
Czihak, G., Aketa, K., Vogel, H., Chang, P., Wolf, W.: Transient Recovery from Trypsin-caused Reduction in Fertilizability of Sea Urchin Eggs	202	John, M.E., s. Meyerhof, W., et al.	366
Dam, W.I. van, Dohmen, M.R., Verdonk, N.H.: Localization of Morphogenetic Determinants in a Special Cytoplasm Present in the Polar Lobe of <i>Bithynia tentaculata</i> (Gastropoda)	371	Kaczanowska, J., Wychowaniec, L., Ostrowski, M.: A Densitometrical Method for the Study of Pattern Formation in a Ciliate <i>Chilodonella</i> (Rapid Communication)	325
Dam, W.I. van, Verdonk, N.H.: The Morphogenetic Significance of the First Quartet Micromeres for the Development of the Snail <i>Bithynia tentaculata</i>	112	Kemmner, W., s. Meer, J.M. van der, et al.	355
Dasgupta, J.D., Singh, U.N.: Spatio-Temporal Distribution of Gap Junctions in Zebra Fish Embryo (Rapid Communication)	378	Kieny, M., s. Chevallier, A.	277
DeLoof, A., s. Stynen, D.	159	Kirby, B.S., Bryant, P.J.: Growth is Required for Cell Competition in the Imaginal Discs of <i>Drosophila melanogaster</i> (Rapid Communication)	289
Deparis, P., s. Flavin, M., et al.	185	Knöchel, W., s. Meyerhof, W., et al.	366
Dohmen, M.R., s. Dam, W.I. van, et al.	371	Kopachik, W.: Orientation of Cells during Slug Formation in <i>Dictyostelium</i>	348
Dreyer, Ch., Scholtz, E., Hausen, P.: The Fate of Oocyte Nuclear Proteins during Early Development of <i>Xenopus laevis</i>	228	Kuhn, D.T., s. Sprey, Th.E., et al.	301
Dübendorfer, K., Nöthiger, R.: A Clonal Analysis of Cell Lineage and Growth in the Male and Female Genital Disc of <i>Drosophila melanogaster</i>	42	Kurn, N., Duksin, D.: Effects of Tunicamycin on Protein Glycosylation and Development in <i>Volvox carteri</i>	169
Duprat, A.M., s. Flavin, M., et al.	185	Lamb, M.J.: The DNA Content of Polytene Nuclei in Midgut and Malpighian Tubule Cells of Adult <i>Drosophila melanogaster</i> (Rapid Communication)	381
Duskin, D., s. Kurn, N.	169	Laz, Th.M., Sicard, R.E.: Cyclic Nucleotide Metabolism during Amphibian Forelimb Regeneration. II. The Protein Kinases	163
Eiben, R.: Storage of Embryonically Transcribed Poly(A) RNA and its Utilization during Metamorphosis of the Hydroid <i>Hydractinia echinata</i>	270	Liversage, R.A., Brandes, P.J.: Forelimb Regeneration in Thyroidectomized Adult Newts Following Organ Culture and Autografting of the Thyroid Glands	149
Epperlein, H.H.: Different Distribution of Melanophores and Xanthophores in Early Tailbud and Larval Stages of <i>Triturus alpestris</i>	19	Lohs-Schardin, M.: <i>Dicephalic</i> — A <i>Drosophila</i> Mutant Affecting Polarity in Follicle Organization and Embryonic Patterning	28
Epperlein, H.H., Claviez, M.: Changes in the Distribution of Melanophores and Xanthophores in <i>Triturus alpestris</i> Embryos during their Transition from the Uniform to Banded Pattern	5	Lundelius, J.W., s. Freeman, G.	69
Eskens, A.A.C., s. Sprey, Th.E., et al.	301	Meer, J.M. van der, Kemmner, W., Miyamoto, D.M.: Mitotic Waves and Embryonic Pattern Formation: No Correlation in <i>Callosobruchus</i> (Coleoptera)	355
Flavin, M., Ton That, H., Deparis, P., Duprat, A.M.: Hemoglobin Switching in the Salamander <i>Pleurodeles waltii</i> . Immunofluorescence Detection of Larval and Adult Hemoglobins in Single Erythrocytes	185	Meer, J.M. van der, s. Miyamoto, D.M.	95
Flickinger, R.A., s. Shepherd, G.W.	1	Merz, G., s. Hilbig, R., et al.	281
Freeman, G., Lundelius, J.W.: The Developmental Genetics		Meyerhof, W., John, M.E., Thomaschek, G., Knöchel, W.:	

Repetitive Sequences Associated with Polyadenylated RNA of <i>Xenopus laevis</i> Embryos	366	Sicard, R.E., s. Laz, Th.M.	163
Miñana, F.J., García-Bellido, A.: Preblastoderm Mosaics of Mutants of the Bithorax-Complex (Rapid Communication)	331	Singh, U.N., s. Dasgupta, J.D.	378
Mitrani, E.: Primitive Streak-Forming Cells of the Chick Invaginate Through a Basement Membrane (Rapid Communication)	320	Smid, I., Tardent, P.: The Influences of Ecto- and Endoderm in Determining the Axial Polarity of <i>Hydra attenuata</i> Pall. (<i>Cnidaria, Hydrozoa</i>) (Rapid Communication)	64
Miyamoto, D.M., Meer, J.M. van der: Early Egg Contractions and Patterned Parasynchronous Cleavage in a Living Insect Egg	95	Sprey, Th.E., Eskens, A.A.C., Kuhn, D.T.: Enzyme Distribution Patterns in the Imaginal Wing Disc of <i>Drosophila melanogaster</i> and Other Diptera. A Subdivision of Compartments into Territories	301
Miyamoto, D.M., s. Meer, J.M. van der, et al.	355	Sprey, T., s. Whittle, R.	285
Mounaji, K., s. Bulrière, D., et al.	222	Stewart-Savage, J., Grey, R.D.: The Temporal and Spatial Relationships between Cortical Contraction, Sperm Tail Formation, and Pronuclear Migration in Fertilized <i>Xenopus</i> Eggs	241
Moustafa, Y., Chibon, P.: Thymic Cell Populations in Amphibia: Quantitative Study of the Growth, Stability, and Regression of the Cell Populations in the Thymus of the Newt <i>Pleurodeles waltlii</i> Michah	309	Stynen, D., DeLoof, A.: Sugar Binding Properties of the Vitellogenic Proteins in the Colorado Beetle, Demonstrated by Hemagglutination and Precipitation Experiments	159
Müller, W.A., Plickert, G.: Quantitative Analysis of an Inhibitory Gradient Field in the Hydrozoan Stolon	56	Sugimoto, K., Hage, W.J., Bluemink, J.G.: Gap Junction Formation between Normal and Reaggregated Endoderm Cells of <i>Xenopus laevis</i> Neurulae	143
Nöthiger, R., s. Dübendorfer, K.	42	Tardent, P., s. Smid, I.	64
Nöthiger, R., s. Sánchez, L.	211	Thomaschek, G., s. Meyerhof, W., et al.	366
Ostrowski, M., s. Kaczanowska, J., et al.	325	Ton That, H., s. Flavin, M., et al.	185
Phillips, J.R., Zalík, S.E.: Differential Lectin-Mediated Agglutinabilities of the Embryonic and the First Extra-embryonic Cell Line of the Early Chick Embryo	234	Verdonk, N.H., s. Dam, W.I. van	112
Plickert, G., s. Müller, W.A.	56	Verdonk, N.H., s. Dam, W.I. van, et al.	371
Rahmann, H., s. Hilbig, R., et al.	281	Vogel, H., s. Czihak, G., et al.	202
Reggi, M. de, s. Bulrière, D., et al.	222	Vogel, O.: Development of Complete Embryos in Drastically Deformed Leafhopper Eggs	134
Reinhardt, Ch.A., Sanchez, L.: Effects of the "Sexcombless" Chromosome (<i>In(1)sx</i>) on Males and Females of <i>Drosophila melanogaster</i>	264	Weinberger, C., Brick, I.: Primary Hypoblast Development in the Chick. I. Scanning Electron Microscopy of Normal Development	119
Richards, G.: Sequential Gene Activation by Ecdysteroids in Polytene Chromosomes of <i>Drosophila melanogaster</i> . VII. Tissue Specific Puffing	103	Weinberger, C., Brick, I.: Primary Hypoblast Development in the Chick. II. The Role of Cell Division	127
Rösner, H., s. Hilbig, R., et al.	281	Whittle, R., Sprey, T.: Correlation between Adult Transformation and Aldehyde Oxidase Staining Pattern in Wing Disc of <i>Apterous</i> Genotypes in <i>Drosophila melanogaster</i> (Rapid Communication)	285
Ryerse, J.S.: Gap Junctions are Non-Randomly Distributed in <i>Drosophila</i> Wing Discs (Rapid Communication)	335	Wilson, Th.G.: A Correlation between Juvenile Hormone Deficiency and Vitellogenic Oocyte Degeneration in <i>Drosophila melanogaster</i>	257
Sánchez, L., Nöthiger, R.: Clonal Analysis of <i>Sex-lethal</i> , a Gene Needed for Female Sexual Development in <i>Drosophila melanogaster</i> (Rapid Communication)	211	Wolf, W., s. Czihak, G., et al.	202
Sanchez, L., s. Reinhardt, Ch.A.	264	Wychowanec, L., s. Kaczanowska, J., et al.	325
Sauer, H.W., s. Baeckmann, A.	341	Zalik, S.E., s. Harris, H.L.	208
Schlüter, U.: Ultrastructural Evidence for Inhibition of Chitin Synthesis by Nikkomycin (Rapid Communication)	205	Zalik, S.E., s. Phillips, J.R.	234
Scholtz, E., s. Dreyer, Ch., et al.	228	Ziomek, C.A.: The Use of Fluorescein Isothiocyanate (FITC) as a Short-Term Cell Lineage Marker in the Peri-Implantation Mouse Embryo	37
Schroeder, P.C., s. Heacox, A.E.	84		
Segler-Stahl, K., s. Hilbig, R., et al.	281		
Shepherd, G.W., Flickinger, R.A.: The Accumulation of Repetitive and Evolutionary Conservative RNA during Frog Embryonic Development	1		
Shimizu, T.: Ooplasmic Segregation in the <i>Tubifex</i> Egg: Mode of Pole Plasm Accumulation and Possible Involvement of Microfilaments	246		

Indexed in Current Contents

